June 11, 1940. A. C. SEWALL 2,204,159

PLATFORM SHOE AND PLATFORM FOR USE IN THE SAME

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Fig. 1.

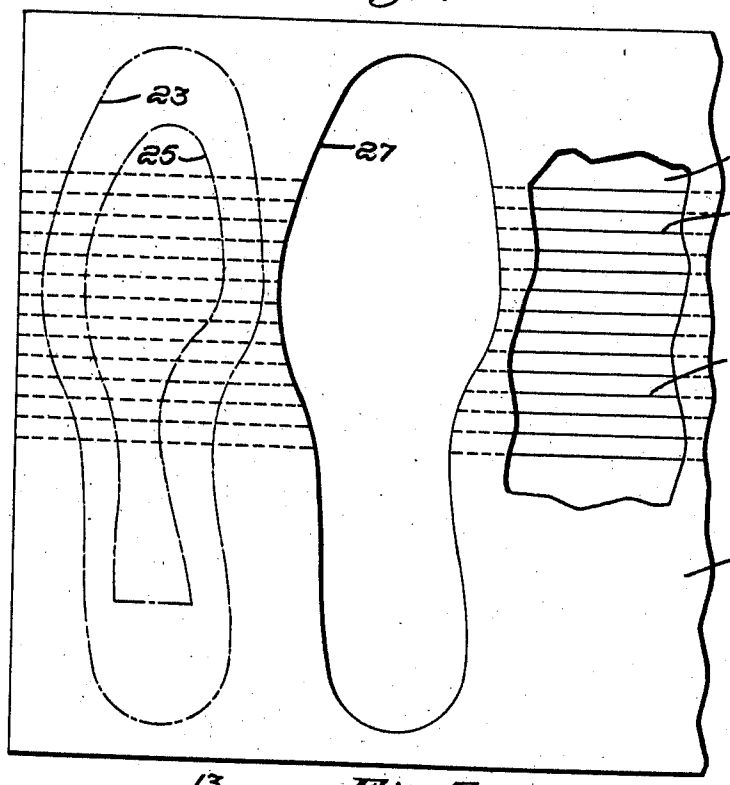


Fig. 2.

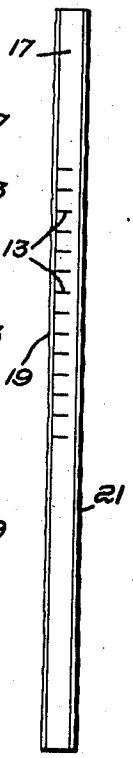


Fig. 3.

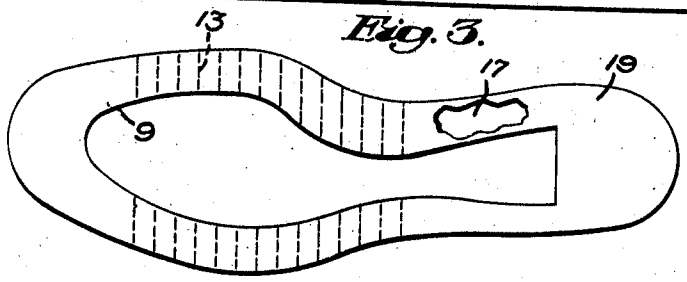


Fig. 4.

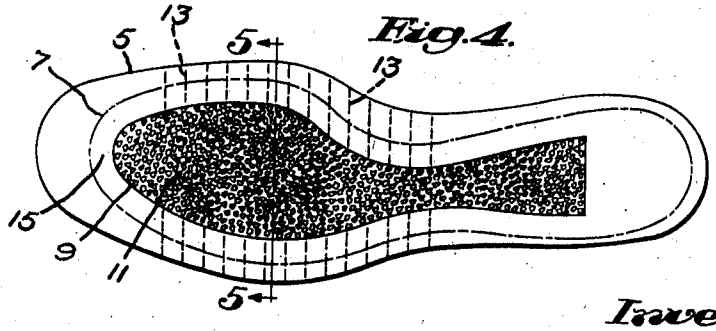
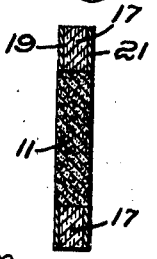


Fig. 5.



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PLATFORM SHOE AND PLATFORM FOR USE IN THE SAME

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Fig. 6.

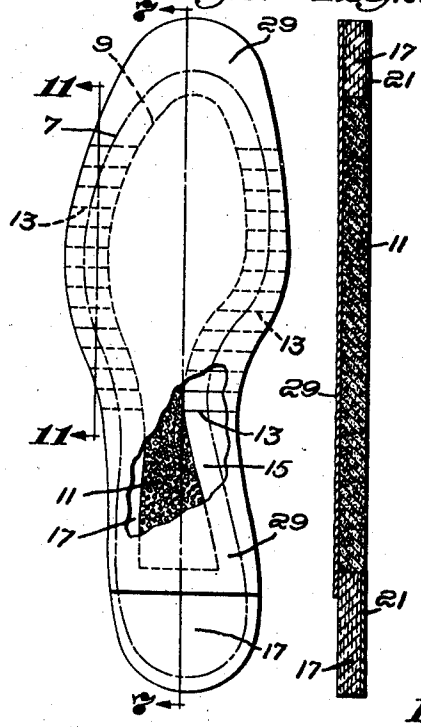


Fig. 7.

Fig. 8.

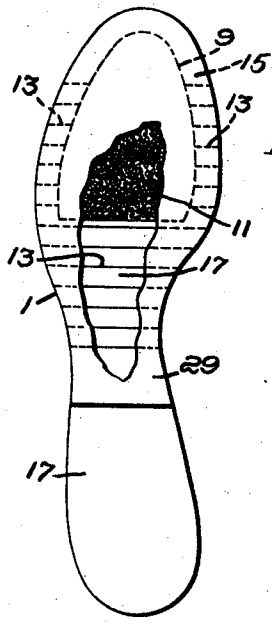


Fig. 9.

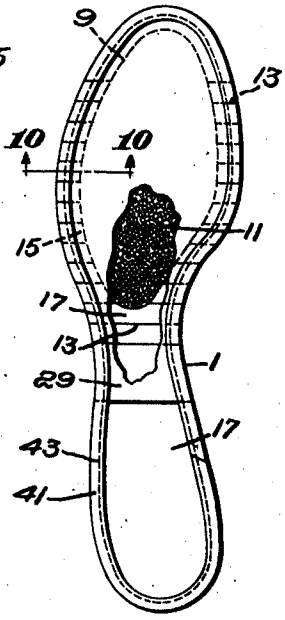


Fig. 10.

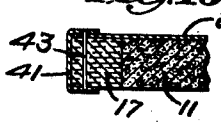


Fig. 12.

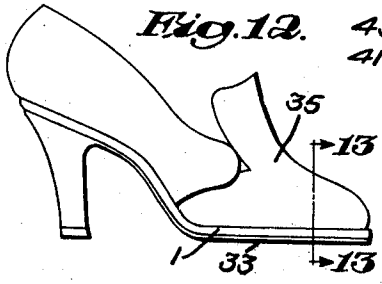


Fig. 11.

Fig. 13.

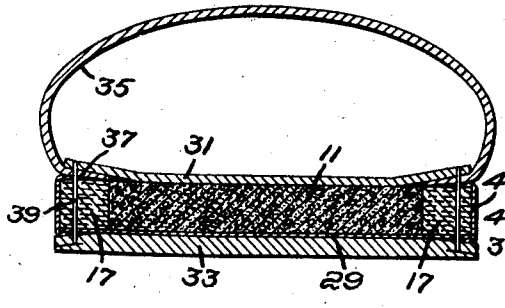
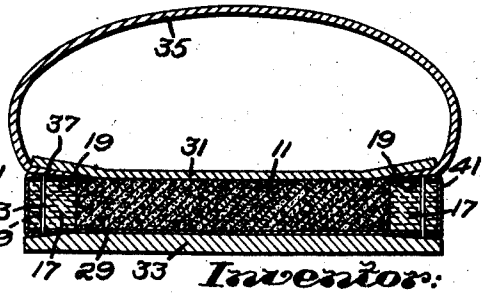


Fig. 14.



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PLATFORM SHOE AND PLATFORM FOR USE IN THE SAME

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Fig. 15.

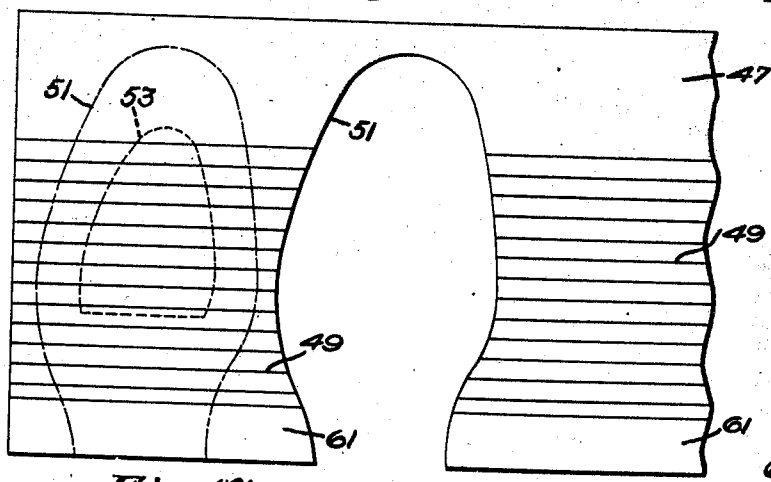


Fig. 16.

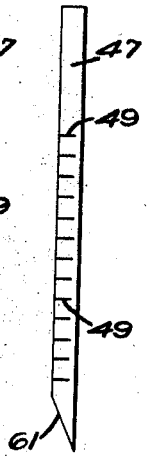


Fig. 17.

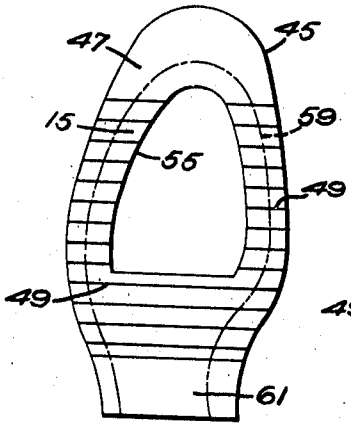


Fig. 19.

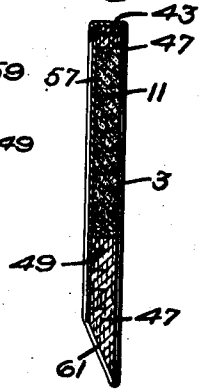


Fig. 18.

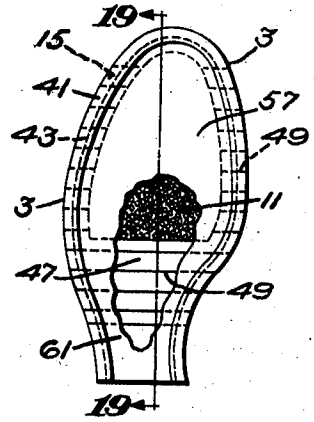
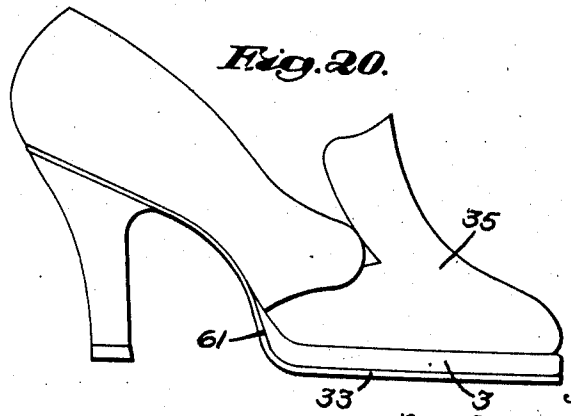


Fig. 20.



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Patented June 11, 1940

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UNITED STATES PATENT OFFICE

2,204,159

PLATFORM SHOE AND PLATFORM FOR USE IN THE SAME

Arthur C. Sewall, Auburn, Maine

Application October 5, 1938, Serial No. 233,472

10 Claims. (Cl. 36—28)

My invention relates to so-called "platform shoes" and so-called "platforms" for use in the same.

The invention, which has among its objects the provision of a shape-retaining cushion platform, will be best understood from the following description when read in the light of the accompanying drawings of several modifications of platforms and shoes employing the same according to the invention, the scope of which latter will be more particularly pointed out in the appended claims.

In the drawings—

Fig. 1 is a plan of one form of sheet from which may be cut the substantially incompressible portions of platforms according to the invention;

Fig. 2 is a side elevation of Fig. 1;

Fig. 3 is a plan of the substantially incompressible portion of a so-called "blocker" according to one form of the invention;

Fig. 4 is a plan of the completed blocker;

Fig. 5 is a section on the line 5—5 of Fig. 4;

Fig. 6 is a plan of a modified form of blocker;

Fig. 7 is a section on the line 7—7 of Fig. 6;

Figs. 8 and 9 respectively are plans of further different forms of platforms according to the invention;

Fig. 10 is a section on the line 10—10 of Fig. 9;

Fig. 11 is a more or less diagrammatic view corresponding to a section on the line 11—11 of Fig. 6 showing a slashed portion of the platform flexed;

Fig. 12 is a side elevation of a shoe having one of the platforms illustrated by Figs. 9 and 10;

Fig. 13 is a section on the line 13—13 of Fig. 12;

Fig. 14 is a section of the shoe corresponding to Fig. 13 showing a further modification and having one of the platforms according to Figs. 4 to 7;

Fig. 15 is a plan of a further form of sheet from which may be cut the substantially incompressible portions of further forms of platforms according to the invention;

Fig. 16 is a side elevation according to Fig. 15;

Fig. 17 is a plan of a blocker cut from the sheet according to Figs. 15 and 16;

Fig. 18 is a plan of a platform formed from the blocker according to Fig. 17;

Fig. 19 is a section on the line 19—19 of Fig. 18; and

Fig. 20 is a side elevation of the shoe having a platform according to Fig. 19.

Different forms of platform shoes are shown by Figs. 12 and 20 respectively. The platforms of each are generally alike except that in Fig. 12 the platform 1 extends the entire length of the shoe, while in Fig. 20 the platform 3 is confined substantially to the toe and ball portions of the shoe.

As illustrated, the platform of the shoe according to Fig. 12 is cut from a blank or blocker 5 (Fig. 4) to the desired outline, say as shown by the broken line 7 of that figure, the blocker as shown being formed with a through opening 9 in which is inserted a sheet 11 of cushion material. The sheet of cushion material preferably is formed of rubber compound mixed with granulated cork. However, it may be formed of any convenient material such as resilient sheet rubber, felt waterproofed with rubber, etc. The body portion of the blocker according to the invention is formed of relatively incompressible material such as stiff hard leatherboard or the like, say from ⅛ to ½" thick depending upon the desired height of the platform, and conveniently is transversely slashed along the lines indicated at 13 (Fig. 4), particularly the thicker sizes, at the ball and adjacent parts of the shank portion, and at other portions if desired, for rendering those portions flexible. It will be observed that when the platform is cut from the blocker the incompressible material forms a frame 15 at the edges of the platform for the cushion material.

In forming the blocker according to Figs. 4 and 5 a long sheet 17 of leatherboard, an end fragment of which sheet is shown in Fig. 1, may be longitudinally slashed along the lines 13 of sufficient depth and close enough together to impart the desired flexibility to the platform. As leatherboard is of such nature that, in handling the platform during fabrication of the shoe and in some instances during wear, it tends to split between the slash lines, to prevent this, and displacement of any portions that might split off, the slashed surface is covered preferably by an adhering layer 19 of resilient material. This layer may take the form of a very thin sheet of resilient rubber cemented to the slashed side of the sheet 17, or, if desired, it may be formed of a thin sheet of relatively loosely woven cotton flannel, the side opposite the nap being rubberized and cemented to the slashed surface of the sheet 17, such a sheet of flannel being sufficiently resilient for the purposes hereinafter described. If the platform is desired for use in a cemented shoe there is also preferably applied to the side of the sheet 17 opposite the slashed side there-

of a second adhering layer 21 similar to the adhering layer 19.

Preferably the layers 19 and 21 are of rubber or resilient rubberized material presenting an exposed surface containing rubber in situations where parts are to be secured to the incompressible portion of the platform by wet latex. Where they are to be cemented by pyroxylin cement preferably they are of the rubberized cotton flannel described or other material which can be applied to present an exposed napped surface.

The incompressible portions of the blanks or blockers conveniently are stamped by use of a die from the sheet along outlines indicated by the broken line 23 of Fig. 1, the openings in these portions of the blockers being cut by the same operation and die along outlines indicated by the broken line 25 of Fig. 1, the opening 27 of Fig. 1 indicating the condition of the sheet at a portion thereof from which the incompressible portion of the blocker has been cut. The blockers shown are for right shoes, but it will be understood that by turning the sheet over from its position in Fig. 1, so as to have the slashed side downward, blockers for left shoes can be cut by use of the same die.

The operation above described results in the formation of a blocker part illustrated by Fig. 3. Sheets of the flexible material of the same or approximate thickness as the incompressible portions of the blockers are cut, preferably by use of a die, to form the cushion portions 11 of the blockers along outlines corresponding to the outlines of the openings 9. The walls of the openings 9, according to one way of practising the invention, may then be coated with suitable cement such as latex, and, after the latex becomes tacky, the preformed cushion portions forced into the openings so that this cement may secure them therein. In this connection it will be understood that the sheets 19 and 21 are shown of exaggerated thickness in the drawings and in practice do not materially increase the thickness of the platform over that determined by the thickness of the incompressible material; which is to say, that in practice the leatherboard sheet and cushion material are preferably substantially of the same thickness in spite of the relative thicknesses being shown otherwise in Fig. 5 and elsewhere in the drawings.

As an alternate way of securing the cushion material in the opening 9 of the blocker, or for additionally securing it, the layer 19 may be omitted from the sheet according to Figs. 1 and 2 from which the incompressible portion of the blocker is cut, and the cushion material 11, with or without cementing its edges to the walls of the opening 9, may be inserted in that opening, and a thin resilient sheet 29 (Figs. 6 and 7) then be cemented over the entire surface of the cushion material and adjacent portions of the blocker at the slashed side of the sheet 17. The sheet 29, which may be of any of the materials described for the sheet 19, serves the same purpose as the sheet 19 as well as acting to secure the cushion material in assembled relation with the incompressible portion of the blocker.

The cushion material 9 may take different shapes, as is clear from Figs. 4, 8 and 9. As shown in Fig. 4, the cushion material, except for the surrounding frame of incompressible material, is coextensive with the toe, ball and shank portions of the platform, and in Fig. 9 is confined to the toe and ball portions and contiguous forward extremity of the shank portion, while in Fig. 8 it is confined to the ball and toe portions. As illustrated in Figs. 8 and 9, the sheet 29 for securing the cushion material to the incompresible material extends rearwardly from the tip of the toe far enough to cover the slashed area of the platform. It will be noted in all of these modifications that the platform between its edges comprises cushion material at the ball portion, and in this sense at least part of the ball portion should comprise the cushion material to suit the needs of the ordinary wearer of the shoe.

The resilient material 19 of the modification illustrated by Figs. 1 to 5, and the resilient material 29 of the modifications illustrated by Figs. 6 to 9, which material in each case covers the slash lines of the incompressible material and preferably is uninterruptedly cemented to the leatherboard, stretch between the portions at opposite sides of each slash line when the platform or shoe is flexed, as is illustrated diagrammatically in Fig. 11. Conveniently this resilient material is applied under a slight initial tension so as to prevent any tendency for it to sag or wrinkle when the shoe is in the unflexed condition.

The shoe illustrated in Fig. 13 comprises an insole 31 and an outsole 33 between which is placed the platform, that illustrated by Fig. 9 specifically being shown. The uppers 35 may be drawn over the insole, and the marginal edge portions 37 of the uppers stapled or otherwise secured to the edge portions of the insole, in the usual manner at the completion of the drawing over operation. The platform and outsole may then be applied to the lasted shoe and secured thereto by the through stitches 39. Preferably a finishing strip 41 is applied to the edges of the platform, which strip preferably is a thin kid leather binding folded over the marginal edges of the platform. Conveniently it may be applied to the platform before positioning it in the shoe by folding it over the edges of the platform and securing it thereto by stitches 43 as indicated in Figs. 9 and 10. The binding 41 however may be cemented in place, particularly if it is kid leather or fabric or other material having sufficient resiliency not to interfere materially with the flexibility of the slashed portion of the platform. It has been found that the incompressible frame causes the platform to have a perfect edge where it shows at the edges of the shoe. Were the platform wholly of cushion material the outsole securing stitches would cause an uneven edge on account of the compressibility of the cushion material, and the edges of the platform would bulge outward during walking and take a set after the shoes were worn for some time, any of which would mar the appearance of the shoe. On the other hand, the incompressible frame prevents any possibility of such effects on account of its incompressibility, yet the platform according to the invention provides in all substantial degrees the desired cushioning effect.

The platform and outsole in some instances may be secured by means of cement, but with some sacrifice of flexibility. Such a shoe is indicated in Fig. 14 wherein the drawn over marginal edges 37 of the uppers are cemented to the insole, and the layer 19 and adjacent edges of the binding 39 are cemented to the marginal portion of the uppers, the outsole being cemented to the sheet 29 of the platform or to the sheet 21 if the latter is employed in place of the sheet 29.

In Figs. 15 to 19 are illustrated forms of strip,

blocker, and platform 3 for use in making shoes according to Fig. 20, which latter otherwise may be constructed in either of the ways shown by Figs. 13 and 14. The platform is similar to that shown by Fig. 8, except that it is considerably shorter. As heretofore explained, the cushion portion of the platform may have various shapes as desired.

Referring to Figs. 15 to 20, the blocker 45 (Fig. 17) may be cut from the strip comprising a sheet 47 (Fig. 15) of incompressible material of the character hereinbefore described, which sheet may be slashed in the same way as is indicated at 49. The incompressible portions 45 (Fig. 17) of the blockers may be cut from this sheet, in the way hereinbefore described, the broken lines 51 and 53 of Fig. 1 showing the preferred outlines of these portions and shape of the openings therein. The cushion material portions 11 may then be formed in the manner hereinbefore described and may be positioned within the openings 55 and secured to the incompressible portions in each case by the resilient sheet 57 (Figs. 18 and 19) corresponding to the sheet 29 of Figs. 6, 8 and 9, after which platforms of the desired contour may be cut from the blockers along outlines indicated by the broken line 59 of Fig. 17, and the binding 41 then be applied to the marginal edges of the platforms in any of the ways hereinbefore described.

As shown, the edge of the platform according to Figs. 18 and 19 opposite the toe portion thereof is skived as indicated at 61 so as to fill the space between the outsole 33 and uppers 35 at the forward extremity of the shank, as will be clear from Fig. 20. Conveniently the skive 61 may be formed on the strip shown by Figs. 15 and 16 before cutting the incompressible portions of the blockers from it.

It will be understood that the sheet 57, if desired, like the sheet 19 of Figs. 1 and 2, may be placed on the strip 47 (before or after it is skived) and that the cushion material in such case may be secured to the incompressible portion by cementing it to the walls of the opening 55 in the manner described in connection with Figs. 4 and 5. Likewise the strip shown by Figs. 15 and 16 may have a covering corresponding to the covering 21 of Figs. 1 and 2 applied thereto so that the same will apear in the platform.

It will be understood that, within the scope of the appended claims, wide deviations may be made from the forms of the invention described without departing from the spirit of the invention.

I claim:

1. A shoe having an outsole, a platform at at least the ball and toe portions, an insole, and uppers; said platform between the edges of the shoe at the ball portion comprising cushion material, and at its edge portions adjacent said cushion material comprising relatively incompressible stiff material which, at at least a material part of the ball portion, is transversely slashed for rendering it relatively flexible, resilient sheet material in adhering relation to said stiff material covering the slash lines therein, said insole being operatively secured to said stiff material for tying together the portions of the latter at opposite sides of said cushion material.

2. A shoe according to claim 1 in which the relatively incompressible stiff material is sheet leatherboard or the like liable to split between the slash lines.

3. A shoe according to claim 1 in which the cushion material and stiff material are sheets of approximately the same thickness.

4. A shoe according to claim 1 in which the cushion material and stiff material are sheets, and the stiff material is slashed at at least the under side thereof.

5. A platform for at least the toe and ball portions of a shoe comprising relatively incompressible stiff material providing an opening between edges of the platform, which opening includes at least a material part of the ball portion, cushion material in said opening, said stiff material being transversely slashed at at least the ball portion of the platform for rendering it relatively flexible, and relatively resilient sheet material in adhering relation to said stiff material covering the slash lines therein.

6. A platform according to claim 5 in which the relatively resilient sheet material also is in adhering relation to the cushion material for acting to secure the latter to the stiff material.

7. A platform according to claim 5 in which the stiff material is leatherboard or the like liable to split between the slash lines.

8. A platform according to claim 5 in which the cushion material and stiff material are sheets of aproximately the same thickness.

9. A platform according to claim 5 in which the cushion material and stiff material are sheets of approximately the same thickness, the relatively resilient sheet material being in adhering relation to both for acting to secure them together.

10. A platform according to claim 5 in which the stiff material is leatherboard or the like liable to split between the slash lines and the cushion material is a sheet of approximately the same thickness, the relatively resilient sheet material being in adhering relation to both for acting to secure them together.

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